

ABSTRACT

Transgenic ungulates and compositions and methods for making and using same, are provided. Central to the invention are porcine, bovine, ovine and caprine embryonic stem cell lines and methods for establishing them. Cells of such lines are transformed with exogenous genetic material of interest and then used to provide chimeric ungulates confirmed by genetic markers which have germ cells comprising the exogenous genetic material. The chimeric ungulates are bred to provide transgenic ungulates. The transgenic animals of the invention may show improved qualities and can be used to provide human proteins or peptide hormones or can be used as xenograft donors.